

1 CLAIM LISTING

3 1-14 Canceled

- 4 15. (New) A weight sensor for an electronic balance, the weight sensor including:
- 5 (a) a base body;
- 6 (b) a load receiver spaced apart from the base body along a first axis;
- 7 (c) guide members connected between the base body and the load receiver so that the
- 8 load receiver is movable along a second axis with respect to the base body, the
- 9 second axis being perpendicular to the first axis;
- 10 (d) an elongated first force-translating element coupled to the load receiver to receive a
- 11 deflecting force in response to a load acting on the load receiver along the second
- 12 axis, the first force-translating element being located asymmetrically relative to a
- 13 sensor plane which is defined by the first and second axes and which
- 14 symmetrically divides the load receiver; and
- 15 (e) a coil through which an electrical current is applied to compensate a deflection of
- 16 the first force-translating element induced by the load acting on the load receiver,
- 17 (f) wherein the first force-translating element, base body, load receiver, and guide
- 18 members are monolithically formed.
- 19
- 20 16. (New) The weight sensor of claim 15 further including at least one additional force-
- 21 translating element coupled to receive a respective deflecting force in response to the load
- 22 acting on the load receiver.

- 1 17. (New) The weight sensor of claim 16 further including at least two additional force-
2 translating elements, and wherein the first force-translating element and at least two
3 additional force-translating elements are arranged together in a spiral shape when viewed
4 in a direction perpendicular to the sensor plane.
5
- 6 18. (New) The weight sensor of claim 17 wherein one of the additional force-translating
7 elements represents a final force-translating element, and wherein the final force-
8 translating element or an extension thereof penetrates the spiral shape.
9
- 10 19. (New) The weight sensor of claim 15 further including a projecting part extending from
11 the base body toward the load receiver, the projecting part providing a respective bearing
12 point for the first force-translating element.
13
- 14 20. (New) The weight sensor of claim 19 wherein the projecting part is formed asymmetrically
15 relative to the sensor plane and the first force-translating element extends from one side of
16 the projecting part in a direction perpendicular to the sensor plane.
17
- 18 21. (New) The weight sensor of claim 19 wherein the projecting part includes at least one
19 gradation along the first axis or in a direction perpendicular to the sensor plane.
20

- 1 22. (New) The weight sensor of claim 19 wherein the rigidity of the projecting part in the area
2 of the respective bearing point is qualitatively or proportionally formed according to a
3 force acting at the respective bearing point from the first force-translating element.
4
- 5 23. (New) The weight sensor of claim 19 wherein at least one section of the projecting part
6 occupies a maximum height between the guide elements along the second axis.
7
- 8 24. (New) The weight sensor of claim 15 further including at least one additional force-
9 translating element and wherein the respective force-translating elements are defined
10 between cutouts which are cut in from only one machining side of the weight sensor.
11
- 12 25. (New) The weight sensor of claim 15 wherein the guide elements have no cutouts along
13 the second axis.
14
- 15 26. (New) The weight sensor of claim 15 wherein the coil is positioned such that it is
16 symmetrically divided by the sensor plane.
17
- 18 27. (New) The weight sensor of claim 15 further including a lever coupled to the first force-
19 translating element, wherein the coil is mounted on the lever at a location spaced apart
20 along the first axis from the coupling between the lever and the first force-translating
21 element, and wherein the lever is formed separately from the first force-translating
22 element.

- 1 28. (New) The weight sensor of claim 27 wherein the lever is coupled to the first force-
2 translating element through an additional force-translating element.
3
- 4 29. (New) A component for a weight sensor, the weight sensor employing electromagnetic
5 compensation to oppose the deflection of one or more force-translating elements in
6 response to a load acting on a load receiver part of the component, the component
7 including:
8 (a) a base body;
9 (b) a load receiver spaced apart from the base body along a first axis;
10 (c) guide members connected between the base body and the load receiver so that the
11 load receiver is movable along a second axis with respect to the base body, the
12 second axis being perpendicular to the first axis; and
13 (d) an elongated first force-translating element coupled to the load receiver to receive a
14 deflecting force in response to a load acting on the load receiver along the second
15 axis, the first force-translating element being located asymmetrically relative to a
16 sensor plane which is defined by the first and second axes and which
17 symmetrically divides the load receiver,
18 (e) wherein the first force-translating element, base body, load receiver, and guide
19 members are monolithically formed.
20
21

- 1 30. (New) The component of claim 29 further including at least two additional force-
2 translating elements, the first force-translating element and two additional force-translating
3 elements being arranged together in a spiral shape when viewed in a direction
4 perpendicular to the sensor plane.
5
- 6 31. (New) The component of claim 29 further including a projecting part extending from the
7 base body toward the load receiver, the projecting part (i) providing a bearing point for the
8 first force-translating element, and (ii) being formed asymmetrically relative to the sensor
9 plane, and wherein the first force-translating element extends from one side of the
10 projecting part in a direction perpendicular to the sensor plane.
11
- 12 32. (New) The component of claim 31 further including at least one additional force-
13 translating element and wherein the projecting part provides a respective bearing point for
14 each additional force-translating element.
15
- 16 33. (New) The component of claim 29 further including a lever coupled to the first force-
17 translating element, wherein the coil is mounted on the lever at a location spaced apart
18 along the first axis from the coupling between the lever and the first force-translating
19 element, and wherein the lever is formed separately from the first force-translating
20 element.
21

34. (New) A component for a weight sensor, the weight sensor employing electromagnetic compensation to oppose the deflection of one or more force-translating elements in response to a load acting on a load receiver part of the component, the component including:
- (a) a base body;
 - (b) a load receiver spaced apart from the base body along a first axis;
 - (c) guide members connected between the base body and the load receiver so that the load receiver is movable along a second axis with respect to the base body, the second axis being perpendicular to the first axis;
 - (d) an elongated first force-translating element coupled to the load receiver via a coupling element so as to receive a first deflecting force in response to a load acting on the load receiver along the second axis; and
 - (e) an elongated second force-translating element coupled to the first elongated force-translating element to receive a second deflecting force in response to the load acting on the load receiver,
 - (f) wherein either the first force-translating element or the second force-translating element is located asymmetrically relative to a sensor plane which is defined by the first and second axes and which symmetrically divides the load receiver, and
 - (g) wherein both the first force-translating element and the second force-translating element are monolithically formed with the base body.

- 1 35. (New) The component of claim 34 further including a projecting part extending from the
2 base body toward the load receiver, the projecting part (i) providing a respective bearing
3 point for the first force-translating element and for the second force-translating element,
4 and (ii) being formed asymmetrically relative to the sensor plane, and wherein the first
5 force-translating element and second force-translating element each extends from one side
6 of the projecting part in a direction perpendicular to the sensor plane.
7
- 8 36. (New) The component of claim 35 further including a third force-translating component
9 and wherein the projecting part provides a respective bearing point for the third force-
10 translating element.
11
- 12 37. (New) The component of claim 36 further including a lever connected to the third force-
13 translating element, wherein a coil is mounted on the lever at a location spaced apart along
14 the first axis from the connection between the lever and the third force-translating element,
15 and wherein the lever is formed separately from the third force-translating element.